



Freshwater Fish of Victoria - Gudgeons

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April 1998

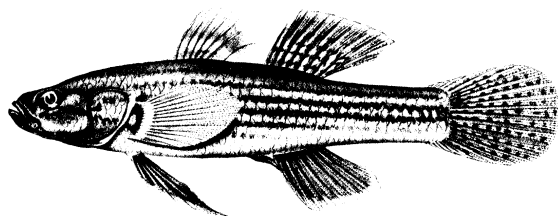
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ISSN 1440-2254

Family:

Eleotridae

General characteristics: No lateral line. Two narrowly separated dorsal fins, the first short and spiny, the second long, soft and the larger. Scales covering body and head, but this is variable. Usually benthic in habit, lying motionless on the bottom and rarely moving unless disturbed. Eggs are laid on solid objects such as rocks or logs, and the male guards the eggs and newly hatched fry.



Common Name:

Striped Gudgeon

Other Name/s:

Nil

Scientific Name:

Gobiomorphus australis
(Krefft, 1864)

Status:

Native

Description

Large rounded head and broad snout, with bulbous cheeks. Small oblique, upturned mouth that barely reaches level with the rear of the eye. Relatively small eyes, positioned high on the head. Body, cheeks and opercula covered with moderate sized scales. Large, rounded tail. Brown, dark brown to grey-green on the upper body, becoming lighter on the sides. Belly is grey or cream. Five to seven thin horizontal dark stripes along the side of the body. Short, broad stripe extends from eye to mouth, second narrower stripe behind the eye. Dark spot at base of pectoral fin. Dorsal and tail fins covered with rows of dark spots, fins otherwise grey to yellow, translucent. Colour intensifies during breeding season, the upper body becoming rich, dark chocolate brown with purple sheen, becoming greenish to lightish gold on the lower sides. Anal fin is orange in the male, golden-yellow in the female.

Distribution

Limited in Victoria to the coastal south-east (east of Wilsons Promontory), abundance not well known, probably not common. Usually more abundant at low altitudes near the coast, especially in summer.

Habitat

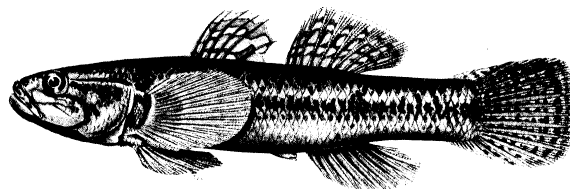
Adult fish occur in a variety of riverine habitats, from turbulent, rapid-flowing head-waters to slower-flowing, often muddy, lowland waters; juveniles are common in estuaries at certain times of the year. Usually found near submerged rocks, logs and vegetation. Occurs most frequently in muddy waterholes or slow flowing areas, rather than swifter clearer waters.

Brief Biology

Known to reach 22.5 cm, but most common to 12 cm. Little is known about spawning or development, but juvenile fish are often found in estuaries, and it is thought that young fish are carried downstream to later migrate back to fresh water. Spawning occurs in late summer and autumn, at a water temperature of about 21°C. Carnivorous, adult fish feeding on aquatic insects and mosquito larvae, and will eat small fish if the opportunity arises.

Other Notes

Important food source for larger fishes, such as Australian bass in coastal streams. Striped Gudgeons have good climbing abilities and are able to negotiate wet rock surfaces around rapids and waterfalls.



Common Name:

Cox's Gudgeon

Other Name/s:

Mulgoa Gudgeon

Scientific Name:

Gobiomorphus coxii
(Krefft, 1864)

Status:

Native

Cox's gudgeon is listed under the **Flora and Fauna Guarantee Act 1988**. Under this legislation, the taking, possession or trading of Cox's gudgeon is prohibited without a permit, licence or Governor-in-Council Order issued under the Act. A Recreational Fishing Licence is not a permit under the Act.

Description

Cylindrical body. Small mouth which does not reach the eye. Back colour varies from dark to light brown, purple or olive green. Sides are often mottled with yellow and the belly is a pale tan, blue or gold. A single dark horizontal



stripe along the mid-line with faint stripes across the gill covers. Dark colour under the chin, and black spots on the fin bases. Tail fin is spotted with irregular bands.

Distribution

Coastal streams and estuaries of the Victorian south-eastern coast, not known to occur on or west of Wilson's Promontory.

Habitat

Appear to be more abundant in flowing waters, including rapids. Adults are not often found in lower reaches of streams, but individuals have been found upstream at altitudes of 700 m.

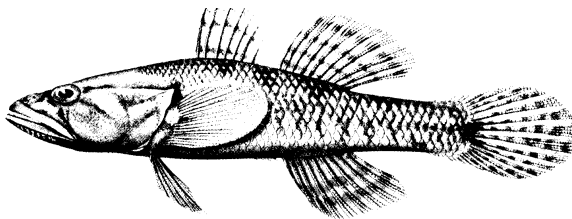
Brief Biology

Can reach 19 cm in length, but most common to 15 cm. Spawning involves laying eggs on rocks, with the male fish remaining on guard and fanning the eggs, which hatch after only a few days.

As large numbers of juveniles are found in middle and lower reaches of streams it is thought that young fish are washed downstream to later migrate upstream. Carnivorous, feeding mainly on small aquatic insects including mosquito larvae.

Other Notes

Individual fish have also been observed climbing dam walls using their large pectoral fins. Forms an important dietary component of birds and larger fish.



Common Name:

Flat-headed Gudgeon

Other Name/s:

Big-headed Gudgeon,
Bull-headed Gudgeon

Scientific Name:

Philypnodon grandiceps
(Krefft, 1864)

Status:

Native

Description

A large, flattened head, with a large, oblique, upturned mouth extending to below the middle of the eye. Eyes positioned high on the head, moderate size. Sharply rounded snout. No scales on the cheeks or gill covers. Upper body colouration varies depending on size and habitat. Black, grey, brown, or reddish-brown fading to yellow or yellowish-green on the belly. Irregular, giant, darker blotches on the back and sides. Four dark bars radiating from the eye; first to the snout, second to the corner of the eye, third to gill cover, fourth to top of gill cover. Fins are translucent, colourless to yellowish, dorsal and anal fins have indistinct grey stripes. Numerous dark spots forming bands on the tail fin.

Distribution

Widespread throughout Victoria, except at higher altitudes in the north-east. Common, often locally abundant.

Habitat

Found in a wide variety of habitats, both freshwater and estuarine. Occurs most frequently in lakes and dams where

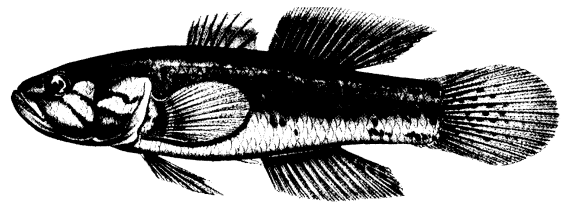
there is little or no water flow, usually where there are weedy or mud bottoms. It can also be found in estuaries.

Brief Biology

Will grow to 12 cm, most commonly to 8 cm. Bottom-dwelling species usually found in close association with submerged cover. Breeding season is late spring and early summer, and may continue into autumn, females laying between 500 and 1,000 eggs which are attached as a single cluster to firm substrates such as a submerged tree trunk or rock. Male remains with the eggs until they hatch. Eggs hatch in 4-6 days. Carnivorous, feeding mainly on small crustaceans, insects and smaller fishes.

Other Notes

Usually lies motionless amongst weeds waiting for prey.



Common Name:

Southern Purple-Spotted
Gudgeon

Other Name/s:

Chequered Gudgeon,
Trout Gudgeon

Scientific Name:

Mogurnda adspersa
(Castelnau, 1878)

Status:

Native

The South Purple-spotted gudgeon is listed under the **Flora and Fauna Guarantee Act 1988**. Under this legislation, the taking, possession or trading of the species is prohibited without a permit, licence or Governor-in-Council Order issued under the Act. A Recreational Fishing Licence is not a permit under the Act.

Description

Rounded head with relatively small, oblique, upturned mouth reaching back to the eye. Lower jaw protrudes beyond the upper jaw. Moderate large eyes positioned high on the head. Dark chocolate brown or yellowish brown on the upper body, becoming lighter on the sides to pale-brown or almost cream. Fawn or buff belly. Between 9 and 12 large black or grey patches on the sides, around which numerous white, red and purple spots occur. Three or four brown facial stripes; two running obliquely from the eye across the cheek and gill cover; another across the gill cover to the pectoral fin base; sometimes a fourth on the snout. Male fish usually have more stripes (3 to 4), females most often have only two. Fins are translucent, yellowish, often with dark edges. Major fins have numerous brick red spots, often with white edges. Usually a blue band along the sides, and at the base and the edge of the anal fin.

Distribution

Historically found in Victoria in tributaries of the Murray River and the Wimmera River; now presumed extinct in Victoria.

Habitat

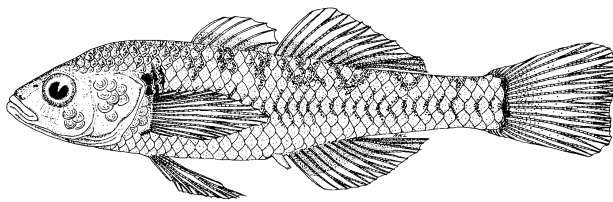
Most frequently found in slow-flowing or still waters including rivers, creeks and billabongs, near cover such as rocks, logs and aquatic plants.

Brief Biology

Known to reach 14 cm, but most commonly found to 7 cm. Spawning season is between December and February, with the eggs being laid in a single cluster on a solid substrate, sometimes very close to the water surface on the underside of floating vegetation. Females produce between 300 and 1,300 eggs which the male guards and fans. Individual females may spawn several times over a season. Carnivorous; diet includes worms, insect larvae, small crustaceans and mosquito fish.

Other Notes

Redfin are known to feed on this Gudgeon; their numbers appear to be affected by large populations of Mosquitofish, *Gambusia holbrooki*.



Common Name: Western Carp Gudgeon
Other Name/s: Nil
Scientific Name: *Hypseleotris klunzingeri*
 (Ogilby, 1898)
Status: Native

Description

Large head, often strongly rounded above the eye. Bluntly rounded snout. Moderately large eyes, positioned high on the sides of the head. Small, oblique, upturned mouth, not reaching below the eye. Numerous rows of small pores on the cheeks, gill covers, snout and around the eye. Upper body colour is usually yellowish-grey to greenish-brown, cream or silver belly. Dorsal and upper body have dark edges. A row of dark vertical bars on the mid-body scales. Dark blotch on base of the pectoral fin, and thin dark bar or blotch near the upper base edge of the tail fin. Gill cover scales often with iridescent spots. Fins vary in colour, usually yellowish to dusky grey. First dorsal fin has a dusky stripe, rest of fin usually orange-red often with a white edge. Second dorsal also has a stripe. Base of tail fin often red.

Distribution

Naturally occurring and widespread throughout tributaries of the Murray River; occurs in high abundance. Occurs also in the Wimmera River and lakes in the Wimmera region, and the Wannon River near Hamilton. Latter populations probably occurred through translocation by man, although no specific records exist. Possibly happened during transfers of larger native fish species such as Murray cod, golden perch and catfish. Common, often abundant.

Habitat

Normally lives amongst vegetation in slow-moving and still waters; in lakes, rivers, creeks and billabongs; found in dams and channels.

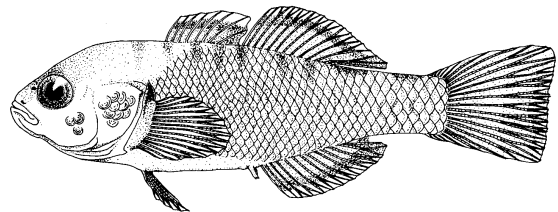
Brief Biology

Known to reach 6.5 cm in length. Spawning season is late spring to early summer, with eggs being laid on aquatic vegetation in very shallow water. Males guard and fans the eggs until they hatch. Because the eggs are laid in

shallow water they are prone to loss from even small falls in river level, and this may account for the short hatching time of 2 to 2.5 days. Carnivorous, taking a range of small aquatic invertebrates, but also eats weeds.

Other Notes

An important forage fish for many of the larger native fish species, and is also eaten by many water birds, such as herons, egrets and cormorants.



Common Name: Lake's Carp Gudgeon
Family: Eleotridae
Scientific Name: *Hypseleotris* sp. 1
 ?
Status: Native

Description

Still being described, but recognized by a deep, compressed body. No scales on top of head or belly. Back is pale grey to brown, lighter on the lower sides to a silvery belly. Dark vertical bands on the sides. Dusky band across the dorsal and anal fins, with a white marginal band. Similar to Midgley's Carp Gudgeon, *Hypseleotris* sp. 2, and requires careful examination to distinguish between the two.

Distribution

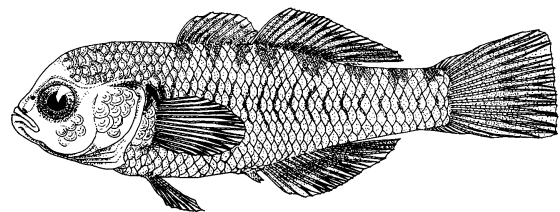
Wide range throughout the Murray-Darling system; locally abundant.

Habitat

Normally found around vegetation.

Brief Biology

Grows to 4 cm. Little is known of reproductive biology. Males have deeper, thicker bodies than females, and develop a distinct hump on the forehead. Breeding season is between October and December, when males become very dark. Carnivore; eating a variety of aquatic insect larvae and eggs as well as copepods.



Common Name: Midgley's Carp Gudgeon
Other Name/s: Nil
Family: Eleotridae
Scientific Name: *Hypseleotris* sp. 2
 ?
Status: Native

Description

Still being described, but recognized by a very compressed head and body. Back colour is brown to pale grey,

becoming lighter on the sides; belly is silvery. Scale edges are black and dark bands are often present on the sides, with a distinct black spot on the pectoral base. The first dorsal fin has alternating dusky and orange stripes with a white margin. Colouration varies with size, sex, locality and season. Similar to Lake's Carp Gudgeon, *Hypseleotris* sp. 1, and requires careful examination to distinguish between the two.

Distribution

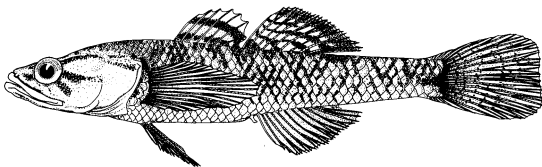
Found throughout the Murray-Darling system; common over the range.

Habitat

Found most frequently near vegetation. It has also been observed to school in caves and other sheltered areas.

Brief Biology

Known to reach 6 cm in length. Little is known of the biology but the species varies between males and females. In females the first dorsal fin is rounded and widely separated from the second; in males the first dorsal fin has a long base reaching back to the second dorsal fin. Mature males develop a distinct hump on the forehead.



Common Name: Dwarf Flat-headed Gudgeon
Scientific Name: *Philypnodon* sp.

?

Status: Native

Description

Currently being described, but recognised by an elongate, compressed body. A large mouth extending to below the eye. Back colour is black to brown, becoming lighter on the sides to a grey or white belly. Dark blotches extend from the back down onto the sides, and there is a dark vertical bar near the base of the tail. head is grey or white; 2 oblique bars extend from behind the eyes across the gill covers. First dorsal fin has two black stripes and the areas between the stripes are whitish or orange. Second dorsal has 3 or 4 black lines. Tail fin has 5 or 6 grey lines with blue or grey margin.

Distribution

Some localities in Victoria in the Murray-Darling system.

Habitat

Appears to frequent quiet areas with little water flow where there are mud or rock bottoms with weeds.

Brief Biology

Known to reach 5 cm in length, but rarely exceeds 4 cm. Tolerates a variety of water conditions, being found in its Australia distribution from brackish estuarine areas to altitudes of several hundred metres. Adults males have a larger mouth than females, a more bulbous head and larger pectoral fins. Mature males may also be darker in colour. Nothing else is known of the reproductive biology. Apparently an omnivore, and will accept live and dead food in aquaria.

Freshwater Fish of Victoria is a series of brief information material on the native and introduced freshwater fish of Victoria's inland waters. Further, detailed reading on Gudgeons is contained in:

Freshwater Fishes of South-Eastern Australia
R M McDowall (Ed.)

A Guide to the Freshwater Fish of Victoria
Phillip Cadwallader & Gary Backhouse,
Department of Conservation and Environment

Australian Freshwater Fishes
John R. Merrick & Gunther E. Schmida

Biological Information for Management of Native Freshwater
Fish in Victoria
J D Koehn, W G O'Connor

FOV #24 - Gudgeons
Prepared with the assistance of Gary Backhouse, Phillip
Cadwallader and Tarmo Raadik.

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